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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,134	07/10/2001	Takashi Takayama	C14-134438M/YAH	5793
21254	7590	10/12/2004	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			PEREZ, ANGELICA	
			ART UNIT	PAPER NUMBER
			2684	

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/901,134	TAKAYAMA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Angelica M. Perez	2684	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2001.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-23 and 26-30 is/are allowed.
- 6) ☒ Claim(s) 24 and 25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)              | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Reasons for allowance***

1. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art shows a high-speed roaming method of a wireless LAN comprising: a network; a plurality of access-points provided in the network; and a mobile terminal that is radio-connected to one of the plurality of access points via a communication system using a frequency hopping, where each of the access points: registers previously a predetermined number of access points out of respective neighboring access points as neighboring access points; sends out hopping information thereof periodically to the network at mutually different timings; receives the hopping information of the neighboring access points out of the respective neighboring access points to construct a database; and where the mobile terminal: monitors the radio beacons of a connected access point and downloads hopping information of the neighboring access points from the connected access point; monitors radio beacons of the neighboring access points based on the hopping information; constructs the hopping information as a mobile terminal database to continuously compare radio environments; and selects and connects an access point having a best radio situation by referring the mobile terminal database of said neighboring access points when a quality of the radio beacon of said connected access point is reduced lower than a predetermined value, where, when the mobile terminal is not connected to the access point having a best radio situation, the mobile terminal is connected subsequently to an access point having a second best radio situation.

The previous art fails to teach of **synchronizing all of the access points in a same subnet of the network and sending out radio beacons synchronously from the access points.**

Claims 2-23 and 26-30 are dependent upon claim 1; therefore, the examiner gives the same reasons for allowance as discussed in claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu (Wu et al., US Patent No.: 6,332,007).

Regarding claim 24, Wu teaches of a mobile terminal (figure 1, lines 38-44) for a wireless LAN (column 1, lines 5-10 and column 3, lines 23-37), comprising: means for monitoring radio beacons of a connected access point and downloading hopping information of a plurality of neighboring access points from the connected access point (column 1, lines 42-57; column 9, lines 7-9 and 34-40 and 52-56; column 10, lines 10-13; e.g., "e.g., "whenever a STA is associated with an AP[.], it might download the hopping information of the adjacent APs from the currently associated AP"); means for monitoring radio beacons of the neighboring access points based on the hopping information (column 5, lines 21-23; where the STA "sniff the Beacon of its adjacent Aps continuously"); means for constructing the hopping information as a mobile terminal database to continuously compare radio environments (column 5, lines s21-23; e.g., "...sniff the Beacon of its adjacent Aps continuously...to its database"); and means for selecting and connecting an access point having a best radio situation by referring the mobile terminal database of the neighboring access point when a quality of the radio beacon of the connected access point is reduced lower than a predetermined value (column 5, lines 21-23 and column 8, lines 49-62; e.g., "...once the Beacon quality of the mobile STA dropped below the threshold..."), where, when the mobile terminal is not connected to the access point having a best radio situation, the mobile terminal is

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connected subsequently to an access point having a second best radio situation (column 5, lines 30-33 and column 8, lines 49-54; where the STA chooses the AP with the best RSSI (best radio situation) when the threshold falls bellow a predetermined level indicating the mobile terminal is not connected to the access point having a best radio situation).

Regarding claim 25, Wu teaches of a mobile terminal (figure 1, lines 38-44) for a wireless LAN (column 1, lines 5-10 and column 3, lines 23-37), comprising: a radio beacon monitor for monitoring radio beacons of a connected access point and downloading hopping information of a plurality of neighboring access points from the connected access point (column 1, lines 42-57; column 9, lines 7-9 and 34-40 and 52-56; column 10, lines 10-13; e.g., "e.g., "whenever a STA is associated with an AP[.], it might download the hopping information of the adjacent APs from the currently associated AP"); a neighbor radio beacon monitor for monitoring radio beacons of the neighboring access points based on the hopping information (column 5, lines 21-23; where the STA "sniff the Beacon of its adjacent Aps continuously"); an information construction device for constructing the hopping information as a mobile terminal database to continuously compare radio environments (column 5, lines s21-23; e.g., "...sniff the Beacon of its adjacent Aps continuously...to its database"); and a selector for selecting and connecting an access point having a best radio situation by referring the mobile terminal database of the neighboring access points when a quality of the radio beacon of the connected access point is reduced lower than a predetermined value (column 5, lines 21-23 and column 8, lines 49-62; e.g., "...once the Beacon

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quality of the mobile STA dropped below the threshold...”), where, when the mobile terminal is not connected to the access point having a best radio situation, the mobile terminal is connected subsequently to an access point having a second best radio situation (column 5, lines 30-33 and column 8, lines 49-54; where the STA chooses the AP with the best RSSI (best radio situation) when the threshold falls bellow a predetermined level indicating the mobile terminal is not connected to the access point having a best radio situation).

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angelica Perez whose telephone number is 703-305-8724. The examiner can normally be reached on 7:15 a.m. - 3:55 p.m., Monday - Friday.

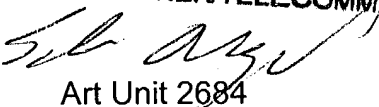
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and for After Final communications.

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Information regarding Patent Application Information Retrieval (PAIR) system can be found at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2600's customer service number is 703-306-0377.

  
Angelica Perez  
(Examiner)

EDAN ORGAD  
EXAMINER/TELECOMM  
  
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September 30, 2004